

4 June 2001

Ms. Magalie Roman Salas Secretary Federal Communications Commission 445 12<sup>th</sup> Street, SW Washington, DC 20554

Re: *Ex Parte Notification*, Revision of Part 15 of the Commission's Rules Regarding Ultra Wideband Transmission Systems, ET Docket No. 98-153

Dear Ms. Salas:

Pursuant to Section 1.1206 of the Commission's Rules, an original and one copy of this letter with attachments are submitted for inclusion in the record.

Sincerely,

Robert J. Fontana, Ph.D.

President

## Attachments:

"Video Reply Comments of Multispectral Solutions, Inc., 1 June 2001, FCC ET Docket No. 98-153"

Reply Comments of Multispectral Solutions, Inc., dated 4 June 2001.

## Before the Federal Communications Commission Washington, D.C. 20554

In the Matter of	}	
	}	
Revision of Part 15 of the Commission's	}	
Rules Regarding Ultra-Wideband	}	ET Docket No. 98-153
Transmission Systems	}	

## Reply Comments of Multispectral Solutions, Inc.

Multispectral Solutions, Inc. (MSSI) is pleased to submit the attached Video Reply Comments (6:53 minutes VHS format) in response to the Notice of Proposed Rule Making (NPRM), FCC 00-163, in the above referenced proceeding. The video tape is subdivided into two (2) sections:

- (1) In the first section, the video illustrates the potential for severe interference to UHF band television broadcasts from unfiltered ultra wideband (UWB) emissions, with or without the use of dithered pulse trains. This section illustrates that, contrary to opinions stated by XtremeSpectrum, Inc. and Time Domain Corporation, pulse train dithering (or making a UWB spectrum more "noise-like") does not necessarily reduce, but may actually increase, the level of observed interference.
- (2) In the second section, a simple UWB antenna is distorted, resulting in a marked change in the resultant measured power spectral density.

This video submission is intended to amplify the comments made by MSSI in its 12 September 2000 submission to the Commission in which it stated that

- (a) Unfiltered UWB systems (i.e., those utilizing direct impulse or step excitation of an antenna) should not be permitted under Part 15; and,
- (b) Filtered UWB systems should be initially allowed only above 3.1 GHz.

Respectfully submitted,

Robert J. Fontana, Ph.D., President

Multispectral Solutions, Inc. 20300 Century Boulevard

Germantown, MD 20874

Tel: (301) 528-1745 FAX: (301) 528-1749

rfontana@multispectral.com